

April 2023

An Update on Cemex’s Patrimonio Hoy from a Resilience Perspective: Furthering Community Resilience to Climate Change via Housing Solutions for Vulnerable Populations

Since 1998, through its subsidiary Patrimonio Hoy, Cemex has been actively involved in addressing the lack of affordable housing in vulnerable communities, empowering those with low incomes to acquire high-quality materials and technical advice. For 25 years, it has improved the quality of life of thousands of families by enabling quality home improvements. As climate change increasingly impacts our communities, Patrimonio Hoy proves to be a key initiative in building climate resiliency through safe and sustainable housing, fostering stronger local economies.

Ricardo Naya, President of Cemex Mexico

Introduction

The increasing frequency of extreme weather events in Mexico and around the world underscores the growing importance of making buildings and housing solutions resilient against severe weather-related conditions. Cemex recognizes that climate-resilient and sustainable housing solutions are crucial – and its program created in 1998, Patrimonio Hoy is proving to be a benchmark in the industry as a climate-related approach to improving housing and the living conditions of those who need it most.

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Climate change is causing more natural disasters that result in significant destruction and loss of life. According to the United Nations, between 1998-2017, climate-related and geophysical calamities killed 1.3 million people, affected 4.4 billion, and caused US\$2.245 trillion in damages. Mexico ranked eighth in estimated losses at US\$46.5 billion.¹

In recent years, extreme weather events have become more frequent and severe, with ten extreme events in 2021 each causing over US\$1.5 billion in damage.² Low-income households are the most affected by these events. A 2022 World Bank report shows that disasters and climate change have more than twice the impact on low-income households than others, as they generally live in the most vulnerable areas.³ In weather-related events, they are more likely to experience damaged walls, blown-off roofs, and collapsed structures.

Cemex developed its market-based Patrimonio Hoy solution to meet the housing needs of low-income families in urban and semi-urban areas, combining resilient and sustainable buildings with a microlending saving model to improve the quality of life for communities and families. The program enables low-income segments to improve their homes and livelihoods. Additionally, Cemex has discovered that the expansion of the program can fill the gap of resilient buildings that exist worldwide, as the situation of climate change continues to aggravate.

Since its establishment, Patrimonio Hoy has benefitted over 650,000 low-income Latin American families, representing more than 3.1 million people, by providing financial and technical advice and other valuable services that enable them to improve their homes and their quality of life. The program has led to the construction of more than 5.1 million square meters of housing, with about 15% of participants using this space to develop their businesses, and over three thousand women being trained as promoters. The program has generated accumulated sales of US\$388.5 million for Cemex in the last 19 years, with US\$5.5 million generated in 2022.

PATRIMONIO HOY KPIs	
DATA UPDATED TO DECEMBER 2022	
•	People benefited: +3.1 million
•	Families benefited: +650,000
•	Square meters built: +5.1 million
•	Percentage of participants who use their space to run a business: ~15%
•	Percentage of participants who are women: 60%
•	Percentage of promoters who are women: 71%
•	Earned income: +US\$388.5 million (sales from 2004 to the estimated close of 2022)
•	Granted credits: +US\$320 million
•	SDGs that this initiative contributes to: 11, 10, 8, 5, 4, 1
•	Increase in the market value of houses built compared to the average comparable houses: ~8-10% for every 3 or 4 square meters built
•	Percentage of participants who would recommend Patrimonio Hoy: 77% NPS

1 UNISDR & CRED. (2017). UNISDR & CRED. *Economic Losses, Poverty and Disasters 1998-2017*. Link: <https://bit.ly/2Edh434>
2 McGrath. (2021). BBC News. *Climate change: Huge toll of extreme weather disasters in 2021*. Link: <https://bbc.in/31Y3Dur>
3 The World Bank (2022). The World Bank. *Global Program for Resilient Housing*. Link: <https://bit.ly/3zmxgbM>

- **Percentage of prospects seeking to participate based on word-of-mouth recommendations:** 16% (according to prospects who were contacted directly via call centers)
- **Coverage:** 31 states, 656 municipalities, and +300 distributors collaborating with Patrimonio Hoy (most of them form part of the Construrama distribution network/channel, but also include Promexma, Home Depot, Azulemex, and other stores)

This case study highlights how Patrimonio Hoy is contributing to resilience-building in Mexico and how it can expand its reach to reduce or prevent the impacts of climate change and protect lives and livelihoods after a weather-related event. Furthermore, it demonstrates how expanding Patrimonio Hoy can further Cemex’s social, business, and development impact as a leader in climate resilience.

Background

Poor-quality housing is a widespread problem in Mexico, with an estimated 34% of families living in substandard homes.⁴ The majority of households in Mexico self-construct their homes, which explains why Patrimonio Hoy focuses on this segment to improve building quality and market growth.

Moreover, according to UN-Habitat, by 2030, over 3 billion people worldwide (roughly 37.5% of the population) will require access to safe and adequate housing due to climate-related disasters.⁵ This highlights the urgent need to make housing safe and resilient to disasters, as it can help protect lives and promote sustainable communities.

Investing in resilient infrastructure in developing countries can have significant net benefits. According to the World Bank, over the lifetime of the infrastructure, the overall net benefit of such investments is estimated at US\$4.2 trillion, with each \$1 invested yielding a \$4 benefit.⁶ The program specifically targets a population that typically is informal but possesses a certain level of income and savings.

PATRIMONIO HOY OPERATING MODEL

Patrimonio Hoy is a membership program that aims to assist low-income families in improving their homes. The program operates under a partnership model, where members are considered partners of the initiative.

Each partner is responsible for their project, which typically lasts between 30–70 weeks and requires a modest weekly payment of 295–380 pesos (approximately US\$15–\$20), depending on the selected project. The average cost of a Patrimonio Hoy project is 20,000 pesos (approximately US\$1,500).

The weekly payments provide socio members with a complete package of technical advice and building materials. Building materials are delivered in one to three installments over the course of the membership,

4. Business Call to Action (2014). Business Call to Action. *CEMEX Patrimonio Hoy: Providing integral housing solutions for low-income families*. Link: <https://bit.ly/3GsxQc0>

5. UN Habitat (2017). UN Habitat. *UP FOR SLUM DWELLERS TRANSFORMING A BILLION LIVES CAMPAIGN UNVEILED IN EUROPE*. Link: <https://bit.ly/3nChwyl>

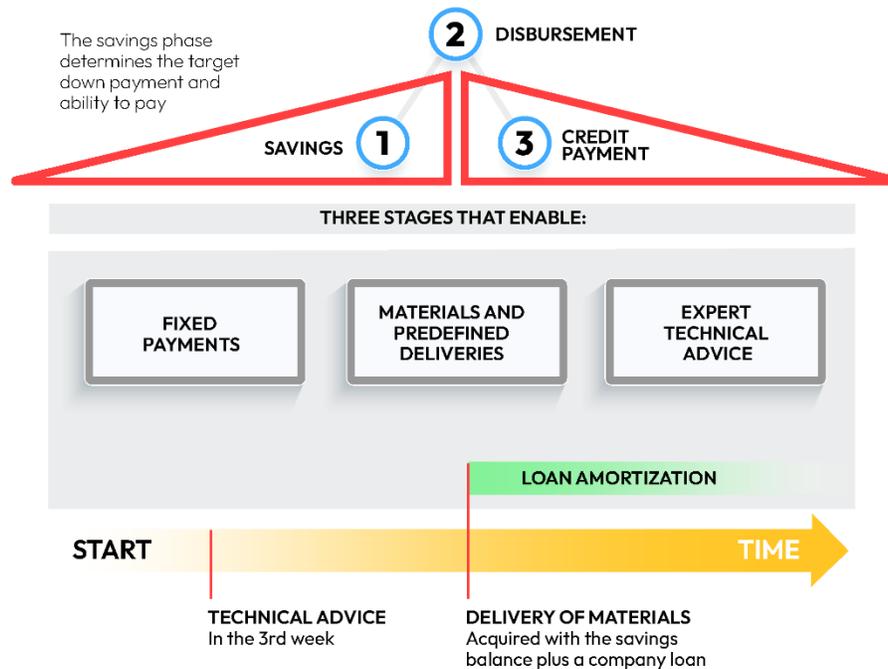
6. The World Bank. (2019). The World Bank. *Lifelines: The Resilient Infrastructure Opportunity*. Link: <https://bit.ly/4OvduqG>

depending on the project. Cemex supports safe and resilient building practices by providing an engineer and an architect to oversee the technical aspects of the construction project.

To ensure members have access to affordable materials, the cost of materials is guaranteed to be held at counter-price. Moreover, in the case of cement, the socio benefits from a price discount. Cemex also provides storage and vouchers for materials if partners run into periods of inconsistent employment or wish to delay construction.

Projects are designed to use material resources efficiently and reduce waste. Patrimonio Hoy operates and maintains a local presence through distributors. Program supervisors recruit promoters and new partners, plan, design, and schedule partner projects, coordinate distributor deliveries, and handle customer inquiries.

Promoters, of which 71% are women, discuss Patrimonio Hoy's benefits, payment plan, and requirements with households. Regional managers and promoters are compensated based on group repayment performance and length of commitment to the program.



How Patrimonio Hoy Creates Impactful Climate Resilience

Patrimonio Hoy is a solution that has proven to be significant and increasingly vital in Mexico, the country's complex geology and its location make it prone to a range of extreme weather events, such as cyclones, frosts, heat waves, and floods, in addition to earthquakes. The frequency of these events is expected to increase by 2050.

According to a climate risk profile for Mexico by the U.S. Agency for International Development, the average annual temperature is predicted to rise by 1.4 to 2 degrees Celsius, total annual precipitation will increase by 13-18% on heavy rainfall days, sea levels will rise to 0.7 meters on the Pacific and Atlantic coastlines by 2090 compared to 1986-2005 levels, and the intensity of rainfall from tropical cyclones will increase in both the Pacific and the Gulf of Mexico, among other anticipated changes.⁷

Cemex is committed to providing affordable housing solutions, recognizing that a safe place to live is a basic human right. Patrimonio Hoy combines technical advice from architects and engineers with a microlending saving model that enables construction and provides household and community economic stability.

The contribution that Patrimonio Hoy generates in the self-construction sector, critical in countries like Mexico, where 70% of homes are self-constructed, is best illustrated through its resilience impact in four key areas of support: Purpose, People, Practice and Pillars of Support, including finance and policy.⁸

Resilience impact: Purpose

Cemex's commitment to its purpose of "Building a Better Future" is reflected in Patrimonio Hoy's mission to address the issue of self-construction, expand affordable housing in vulnerable communities, and enable those with low income and limited startup capital to afford high-quality building materials and technical advice.

Patrimonio Hoy collaborates with Cemex's Social Impact offices to continually meet the evolving customer needs and offer new services as housing improves. For example, Cemex supports entrepreneurial skill-building among program participants through initiatives that extend training and resources such as the Cemex' Centros Productivos de Autoempleo (CPA) initiative – 150 self-employment centers in Mexico and four other countries to increase self-employment.

Another initiative, Cemex's Clean Cookstoves program, promotes health and safety in homes by reducing carbon dioxide emissions through the development and distribution of stoves that require less maintenance and 65% less firewood, as well as other energy-efficient appliances.

Resilience impact: People

Patrimonio Hoy has had a significant impact on the lives of an estimated 650,000 Latin American households, involving and benefiting families in the improvement of their homes. With 77% of partners recommending the program, referrals are likely to increase participation even further. According to the NPS, 16% of prospects who were contacted directly via call centers, people would seek to participate based on word-of-mouth recommendations.

7. USAID. (2017). USAID. *Climate Risk Profile Mexico*. Link: <https://bit.ly/3G5HC3G>

8. Reforma. (2020). Reforma. *Housing: 70% of homes in Mexico are self-built*. Link: <https://bit.ly/3Kn1FyD>

The program benefits families with building materials as well as technical advice from architects and engineers who assist them in designing their homes. Additionally, Patrimonio Hoy also has played a role in supporting the economic inclusion of women. Its sales force is 71% women, many of whom had no previous work experience. Moreover, 60% of its associates are women family leaders. Patrimonio Hoy empowers those it touches.

Resilience Impact: Practice

Patrimonio Hoy's approach to self-construction and affordable housing is designed to be accessible and effective. The program offers families a complete package that is tailored to their specific needs and financial capacity, making it easy for them to embrace a do-it-yourself approach to building a more sustainable and resilient home. Although participants are required to have land on which to build, they receive comprehensive advice on how to do it and financial support through a microlending saving approach.

Patrimonio Hoy's housing system is faster to complete than traditional construction methods. On average, houses are built three times faster than the national average, resulting in cost savings due to reduced labor and material expenses. Additionally, the market value of homes built through the program is approximately 8-10% higher than comparable homes. In addition, around 15% of homeowners use part of their homes for income-generating activities, demonstrating the program's potential to foster economic development and enhance household resilience.

To further enhance the resilience impact of Patrimonio Hoy, the program also receives support from policies that promote affordable housing and sustainable development. In Mexico, the government has implemented policies that prioritize access to basic housing services in vulnerable communities. Patrimonio Hoy aligns with these policies by providing affordable, high-quality housing solutions. Additionally, the program supports sustainable development by promoting the use of eco-efficient building materials and practices that reduce the environmental impact of construction.

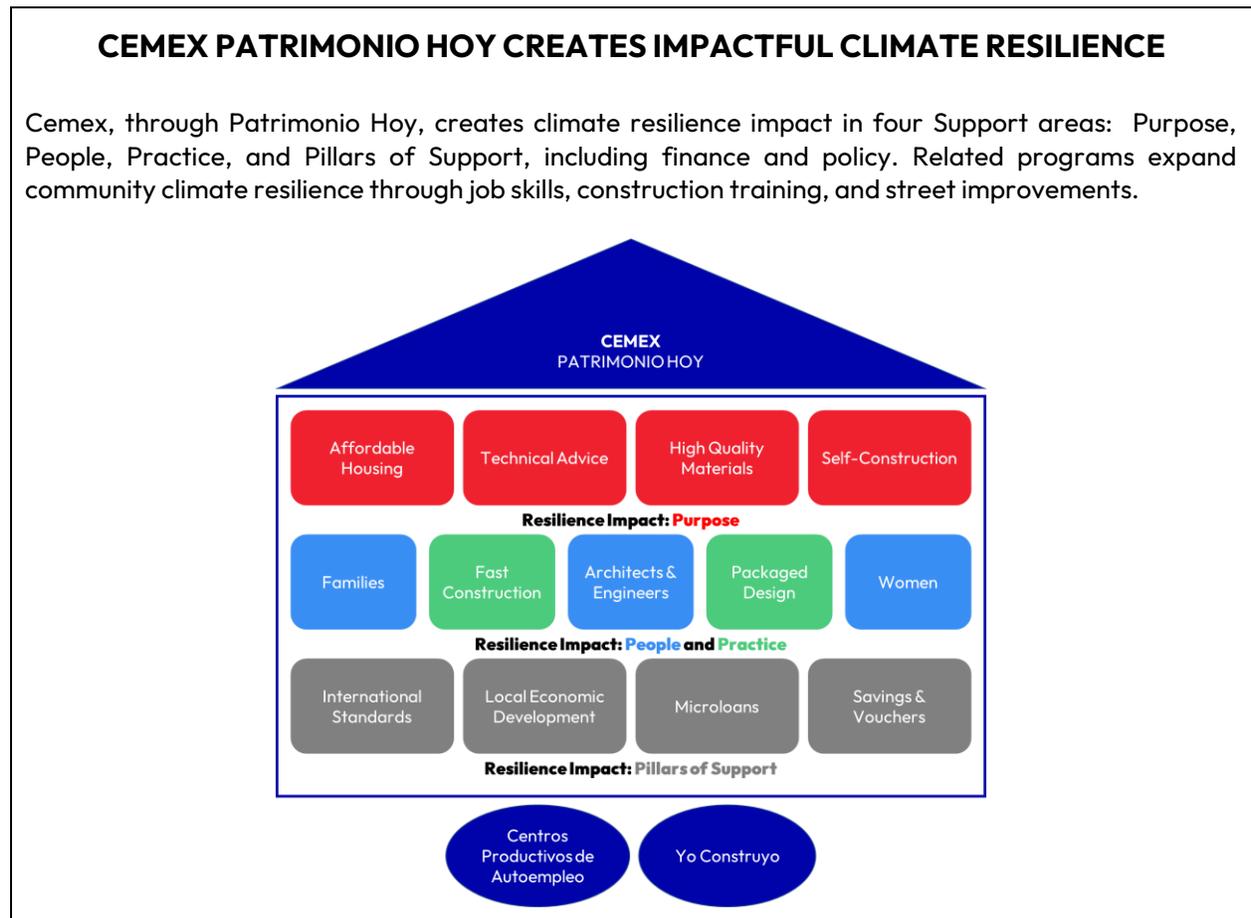
The program has established partnerships with international organizations such as Habitat for Humanity and the Inter-American Development Bank, which provide technical assistance, financing, and regulatory support to promote affordable housing initiatives in Latin America. These partnerships enable Patrimonio Hoy to leverage resources and expertise to further enhance its resilience impact and contribution to the UN Sustainable Development Goals.

Resilience Impact: Pillars - Funding and Policy Support

Patrimonio Hoy combines funding, savings, policy, and a self-building solution to support and achieve resilience.

Funding: Cemex established a microlending saving approach. It includes a credit microlending structure, compensates architects and engineers from a lending pool, and offers storage and vouchers to alleviate household and community economic instability and keep affordable housing on track. Participants pay weekly as part of microlending, and managers are compensated. Beyond its direct funding, Patrimonio Hoy generates indirect resilience effects via local economic development.

Policy: The United Nations Business Call to Action, a multilateral alliance among UN members, assisted Cemex and Patrimonio Hoy in 2014 to define international standards for measuring social and economic impacts in the housing sector. Patrimonio Hoy provided needed inputs and handles the groundwork required for such measurements.



Looking Forward

Climate-related disasters will continue to increase the demand for climate-resilient homes, not just in Mexico but across the world. For instance, in 2021, natural disasters affected

one in ten residential properties in the United States, according to global property data company CoreLogic.⁹

Additionally, as urbanization accelerates in Latin America, there is a growing need for smarter construction that contributes to mitigating climate change and resource scarcity while improving social well-being. Cemex is uniquely positioned to provide integrated solutions for building and maintaining more sustainable and resilient housing, including initiatives for climate refugees.

Cemex is updating its original Patrimonio Hoy model, tailored to the Mexican self-construction market, to better address primary and secondary climate risks. However, the key elements of the model, such as micro-finance, entrepreneurial training, secure homes, and employment opportunities (especially for women), are still crucial for achieving climate resilience in vulnerable populations. Moving forward, Cemex will continue to understand the challenges and create a tangible offer to improve livelihood amid climate change.

About Cemex

Cemex is a global solutions company that is building a better future through sustainable products and solutions. Cemex is committed to achieving carbon neutrality through relentless innovation and industry-leading research and development. Cemex is at the forefront of the circular economy in the construction value chain and is pioneering ways to increase the use of waste and residues as alternative raw materials and fuels in its operations with the use of new technologies. As part of Cemex's strategy, it combines a social impact aim along with a positive environmental impact. Cemex offers cement, ready-mix concrete, aggregates, and urbanization solutions in growing markets around the world, powered by a multinational workforce focused on providing a superior customer experience, enabled by digital technologies. For more information, please visit: www.cemex.com.

About Climate Resilience Consulting

Climate Resilience Consulting's mission is to enable communities, governments, and corporations to avoid, prepare for and resist the global and local impacts of climate change. It envisions a more equitable world with more lives saved and livelihoods enhanced in the face of climate disruption. www.climateresilienceconsulting.com

9. Core Logic. (2022). Core Logic. *2021 Climate Change Catastrophe Report*. Link: <https://bit.ly/3nD6Wl4>